AGRICULTURAL CHEMICAL USAGE 2004
WINTER WHEAT

Released: May 2005

WASHINGTON AGRICULTURAL STATISTICS SERVICE

U.S. Department of Agriculture
Washington Agricultural Statistics Service
P.O. Box 609, Olympia, WA 98507

OVERVIEW

This report continues the series of annual Field Crops Summaries issued by the National Agricultural Statistics Service (NASS) containing on-farm agricultural chemical use statistics. The data presented in this report are part of a continuing data series on chemical use.

NASS is responsible for collecting on-farm agricultural chemical use information to support the evaluation of water quality and food safety issues. The Economic Research Service (ERS) conducts research on the impact of alternative pesticide regulations, policies, and practices.

The national report includes farm use of fertilizers and pesticides during 2004 on soybeans, durum wheat, other spring wheat, and winter wheat. Data presented in this publication are for winter wheat only. Chemical usage information for other states and crops are available in the National report. The use of trade names in this publication is for information only and should not be construed as a recommendation by NASS.

WINTER WHEAT: FERTILIZER USE, PESTICIDE APPLICATIONS, TOTAL ACREAGE & PERCENTAGE RECEIVING APPLICATIONS, MAJOR STATES & TOTAL, 2002 & 2004

State	Planted Acreage		Area Receiving Fertilizer 1/						Area Receiving Pesticide 2/					
			Nitrogen		Phosphate		Potash		Herbicide		Insecticide		Fungicide	
	2002	2004	2002	2004	2002	2004	2002	2004	2002	2004	2002	2004	2002	2004
	1,000 Acres		---------Percent---------						---------Percent---------					
CO	1,650	2,300	64	59	31	31	**	5	12	54	-	-	-	-
ID	3/	750	3/	89	3/	62	3/	31	3/	94	3/	1	3/	-
IL	650	920	96	98	76	85	74	77	39	35	-	-	-	9
KS	8,100	10,000	91	90	64	62	8	6	32	38	7	-	-	-
MI	3/	660	3/	97	3/	71	3/	77	3/	50	3/	11	3/	11
MO	760	1,050	97	97	75	84	74	86	12	35	-	8	-	-
MT	750	1,900	88	92	81	83	46	21	80	95	-	-	-	-
NE	1,520	1,850	79	73	45	42	4	3	49	51	-	-	-	-
OH	810	920	98	100	89	95	88	90	31	29	-	-	-	-
OK	3,500	6,200	92	92	59	62	4	13	36	34	32	24	-	-
OR	3/	820	3/	96	3/	11	3/	6	3/	98	3/	3	3/	3
SD	3/	1,650	3/	77	3/	58	3/	7	3/	66	3/	-	3/	13
TX	2,700	6,300	62	64	28	35	7	9	34	19	21	7	-	-
WA	**1,750**	**1,800**	99	97	**39**	**24**	**11**	**3**	87	88	-	-	**3**	**4**
Total	**22,190**	**37,120**	**86**	**84**	**55**	**55**	**15**	**16**	**38**	**45**	**11**	**7**	**	**2**

1/ Refers to acres receiving one or more applications of a specific ingredient.
2/ Refers to acres receiving one or more applications of a specific pesticide class.
3/ State was not surveyed in 2002.
- Insufficient reports to publish data for this fertilizer ingredient or pesticide class.
*** Applied on less than one percent of acres.*

WINTER WHEAT: AGRICULTURAL CHEMICAL APPLICATIONS, WASHINGTON, 2002-2004 1/

Agricultural Fertilizers & Chemicals	Area Applied 3/		Applications		Rate Per Application		Rate Per Crop Year		Total Applied	
	2002	2004	2002	2004	2002	2004	2002	2004	2002	2004
	Percent		Number		Pounds Per Acre				Million Pounds	
Fertilizers:										
Nitrogen	99	97	1.3	1.5	53	61	73	93	126.5	161.2
Phosphate	39	24	1.0	1.6	17	18	18	27	12.3	11.6
Potash	11	3	1.0	1.6	18	17	18	28	3.5	1.4
	Percent		Number		Pounds Per Acre				1,000 Pounds	
Herbicides: 2/										
2, 4-D	33	32	1.1	1.0	0.49	0.46	0.55	0.47	318	267
2,4-D, Dimeth. salt	-	2	-	1.0	-	0.38	-	0.38	-	14
2,4-DP, Dimeth. salt	-	13	-	1.0	-	0.42	-	0.42	-	97
Bromoxynil	22	13	1.0	1.0	0.20	0.32	0.22	0.32	83	75
Chlorsulfuron	7	6	1.0	1.0	0.01	0.01	0.01	0.01	2	1
Clodinafop-propargil	-	3	-	1.0	-	0.05	-	0.05	-	3
Dicamba	-	8	-	1.0	-	0.15	-	0.15	-	22
Glyphosate	11	21	1.3	1.2	0.47	0.44	0.65	0.52	127	200
Imazamox	-	6	-	1.0	-	0.03	-	0.03	-	3
MCPA	35	19	1.0	1.0	0.28	0.40	0.29	0.40	179	135
Metribuzin	12	-	1.0	-	0.17	-	0.17	-	38	-
Metsulfuron-methyl	20	30	1.0	1.0	0.005	0.002	0.005	0.002	2	1
Prosulfuron	8	2	1.0	1.0	0.01	0.02	0.01	0.02	2	1
Sulfosulfuron	27	12	1.0	1.1	0.03	0.03	0.03	0.03	14	6
Thifensulfuron	25	32	1.1	1.0	0.01	0.008	0.01	0.008	5	5
Triasulfuron	4	5	1.0	1.0	0.02	0.02	0.02	0.02	1	2
Tribenuron-methyl	24	29	1.1	1.0	0.005	0.004	0.005	0.004	2	2
Fungicides:										
Propiconazole	-	4	-	1.0	-	0.10	-	0.10	-	7

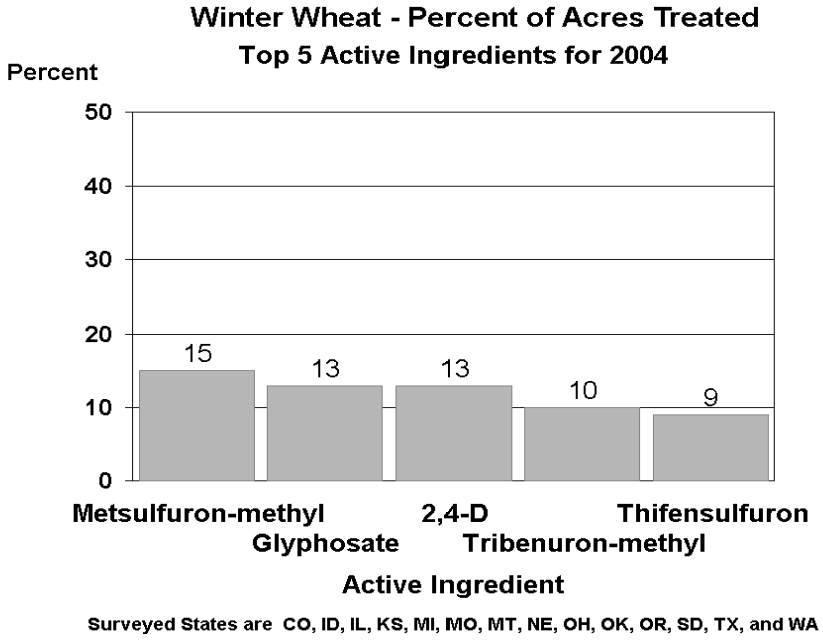
- Insufficient reports to publish state level usage estimates.

1/ Planted acres in 2002 for Washington were 1.75 million acres and in 2004 there were 1.80 million planted acres.

2/ Insufficient reports in 2002 to publish data for the following chemicals: Herbicides: Acetic acid, Atrazine, Carfentrazone-ethyl, Clopyralid, Dicamba, Diclofop-methyl, Difenzoquat, Fenoxaprop, Flucarbazone-sodium, Fluroxypyr, Fluroxypyr 1-methylh, Imazamethabenz, Triallate. Insecticides: Dimethoate. Fungicides: Mancozeb, Propiconazole, Thiophanate-methyl, Trifloxystrobin. Insufficient reports in 2004 to publish data for the following chemicals: Herbicides: Acetic acid (2,4-D), Acifluorfen, Atrazine, Benefin, Bromoxynil octanoate, Butoxy. ester 2,4-D, Clopyralid, Dicamba, Sodium salt, Diuron, Fenoxaprop, Flucarbazone-sodium, Fluroxypyr, Fluroxypyr 1-methylh, MCPA, dimethyl. salt, Mesosulfuron-Methyl, Metribuzin, Oryzalin, Quinclorac, Tralkoxydim, Triallate. Insecticides: Dimethoate. Fungicides: Mancozeb, Pyraclostrobin, Tebuconazole, Thiophanate-methyl, Trifloxystrobin.

3/ Refers to acres receiving one or more applications of a specific agricultural chemical.

Note: Data may not multiply across due to rounding. Source: "2004 Field Crops Summary" and Agricultural Chemical Usage Survey. National Agricultural Statistics Service, USDA.

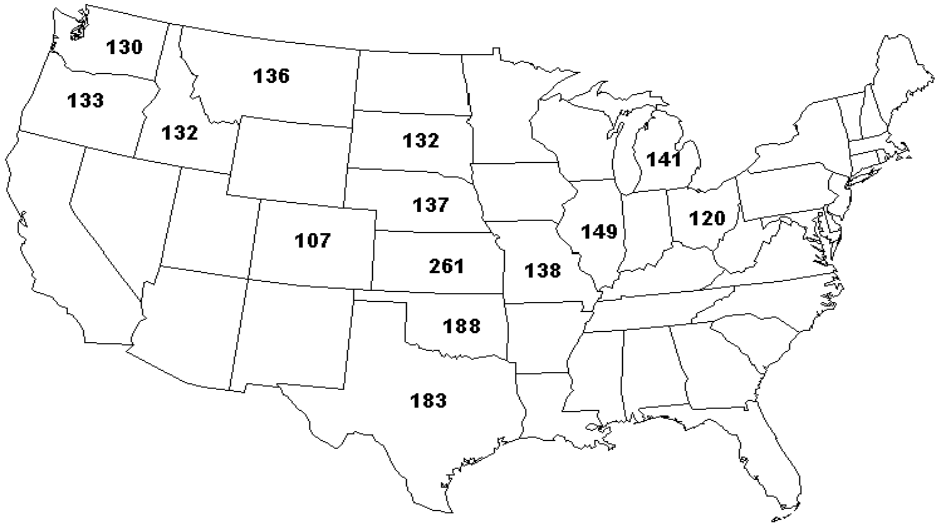


TRADE NAMES, COMMON NAMES, AND CLASSES

The following is a list of common name, associated class, and trade name of active ingredients in this publication. The classes are herbicides (H), insecticides (I), fungicides (F), and other chemicals (O). This list is provided as an aid in reviewing pesticide data. Pre-mixes are not cataloged. The list is not complete for all pesticides used on field crops and NASS does not mean to imply use of any specific trade name. This is a list of those reported in Washington.

Class	Common Name	Trade Name
H	2, 4-D	Agsco, Amine, Barrage, Class, Clean Crop Low Vol, Curtail, Ded-Weed Sulv, Envy, Grazon P+D, Hi-Dep, Landmaster, LV 6, Riverside, RT Master, Salvo, Tiller, Turret, Unison, Weed Rhap, Weedar, Weedmaster, Weedone
H	2,4-D, Dimeth. salt	Banvel + 2,4-D, Riverdale Triplet Selective, Saber, Savage, Weedar
H	2,4-DP, Dimeth. salt	Amine
H	bromoxynil	Agsco, Bromox/MCPA, Bronate, Buctril, Buctril + Atrazine, Rhino
H	chlorsulfuron	Finesse, Glean
H	Clodinafop-propargil	Discover
H	dicamba	Banvel, Banvel + 2,4-D, Clarity, Fallow Master, Oracle Dicamba, Rave, Weedmaster, Outlaw
H	glyphosate	Accord, Backdraft, Bronco, Buccaneer, Clear-Out, Cornerstone, Credit, Extreme, Fallow Master, Field Master, Gly Star, Gly-Flo, Glyfos, Glyphomax, Glyphosate, Honcho, Landmaster, Mad Dog Glyphosate, Mirage, Protocol, Ranger, Rattler, Roundup, RT Master
H	Imazamox	Beyond, Raptor
H	MCPA	Bromox, Bronate, Cheyenne, Chiptox MCPA, Class MCPA, Curtail, MCP Ester, MCP Amine
H	metribuzin	Axiom, Boundary, Canopy, Domain, Lexone, Sencor, Turbo
H	metsulfuron-methyl	Ally, Canvas, Finesse, Valuron
F	propiconazole	Artisan Peanut, Bravo, Bumper, PropiMax, Quilt Stratego, Tilt
H	prosulfuron	Exceed, Peak
H	sulfusulfuron	Maverick
H	thifensulfuron	Ally Extra, Canvas, Harmony, Pinnacle, Synchrony, X-tra (Cheyenne)
H	triasulfuron	Amber, Rave
H	tribenuron-methyl	Ally Extra, Canvas, Express, Harmony, X-tra (Cheyenne)

Winter Wheat: Number of Usable Reports, 2004



Winter Wheat: Pest Management Practices, Washington and Program States, 2004

Practices	WA	Program States	WA	Program States
	Percent of Acres Receiving		Percent of Farms Utilizing	
Prevention Practices:				
No-till/minimum till used	16	28	23	28
Remove or plow down crop residue	65	30	66	30
Clean implements after fieldwork	39	40	49	34
Field edges/etc. chopped, mowed/etc.	24	37	41	34
Water management practices	5	1	5	1
Avoidance Practices:				
Adjust planting/harvesting dates	21	15	19	15
Rotate crops to control pests	17	29	31	35
Planting locations planned to avoid pests	7	5	20	5
Crop variety chosen for pest resistance	33	22	34	20
Monitoring Practices:				
Scouting by general observation	27	49	35	49
Deliberate scouting activities	72	31	64	29
Field was not scouted	*	20	1	22
Established scouting process/insect trap used	17	6	14	5
Scouting due to pest advisory warning	1	4	1	4
Scouting due to pest development model	3	3	6	4
Scouted for weeds	100	76	99	75
Scouting for weeds was done by:				
Operator, partner, or family member	82	88	75	91
An employee	1	2	4	1
Farm supply or chemical dealer	17	7	21	7
Indep. crop consultant or comm. scout		3		2
Scouted for insects and mites	72	63	69	62
Scouting for insects/mites was done by:				
Operator, partner, or family member	81	90	74	91
An employee	1	*	5	1
Farm supply or chemical dealer	18	6	20	6
Indep. crop consultant or comm. scout		4		2
Scouted for diseases	81	58	80	58
Scouting for diseases was done by:				
Operator, partner, or family member	79	88	68	91
An employee	1	*	5	1
Farm supply or chemical dealer	20	7	27	6
Indep. crop consultant or comm. scout		4		2
Records kept to track pests	18	9	24	7
Field mapping of weed problem	8	3	9	3
Soil/plant tissue analysis to detect pests	2	3	3	1
Weather monitoring	75	20	73	16
Suppression Practices:				
Biological pesticides	2	*	8	*
Scouting used to make decisions	13	8	17	7
Maintain ground cover or physical barriers	46	25	33	24
Alternate pesticides with different MOA	36	8	42	7

* *Less than 0.5 percent.*